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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/580,219

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Krister Hansson

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EXAMINER

YAO, SAMCHUAN CUA

ART UNIT

PAPER NUMBER

1733

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

8

Office Action Summary	Application No.	Applicant(s)	
	10/580,219	HANSSON ET AL.	
	Examiner	Art Unit	
	Sam Chuan C. Yao	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4 and 6-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5-22-06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Species Set I

Species A: printing ink is an alkyde based ink;

Species B: printing ink is a polyester-acrylate based ink.

Species Set II

Species X: etherified amino resin;

Species Y: methylol amino resin.

Applicant is required, in reply to this action, to elect a single species for each of the above set of species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims

Art Unit: 1733

are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

2. The claims are deemed to correspond to the species listed above in the following manner:

Species A corresponds to claim 2;
Species B corresponds to claim 3.

Species X corresponds to claim 4;
Species Y corresponds to claim 5.

The following claim(s) are generic: claim 1.

3. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

These two sets of species have mutually exclusive special technical features.

4. During a telephone conversation with Mr. Thomas Pavelko on 03-23-07 a provisional election was made with traverse to prosecute the invention of Species A & X, claims 1-2, 4, and 6-16. Affirmation of this election must be made by applicant in replying to this Office action. Claims 3 and 5 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 15 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As far as the Examiner can tell, no express support can be found for the newly amended limitation of "... are at least one selected from the group ..." per claim 15, without any guidelines/guidance from Counsel/Applicant as to where support might be found, this engenders a New Matter situation. This limitation now embraces a combination of particles listed in a Markush group. The original disclosure as a whole failed to convey to one in the art that applicant has in possession to this newly claimed subject matter.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1733

9. Claims 1 and 5-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson et al (US 6,465,046 B1) in view of Scher et al (US 3,814,647) and/or Pavlin (US 5,026,754).

At the outset, the original disclosure fails to provide a definition of the term "ink" and more importantly, what materials must be present in a composition for it to be considered as "ink" in the context of the presently recited claims.

Hansson et al, drawn to a process for manufacturing a decorative laminated board, substantially discloses the process recited in claim 1 (col. 4 line 46 to col. 6 line 26). While Hansson et al teaches forming a decorative design on a décor layer using a printing ink, Hansson et al does not teach mixing "... an amount of amino resin" "into the printing ink in order to increase the bond between the decorative layer and wear layer" as required in claim 1. However, it would have been obvious in the art to use ink composition having an ink-based composition (e.g. pigments, solvent, surfactant, etc.) which is blended with a thermosetting resin such as a melamine type resin in a process of forming a décor layer of Hansson et al, because Scher et al, drawn to making a decorative laminated article of a type disclosed by Hansson et al, discloses the desirability for using an ink composition comprising an ink based composition (e.g. pigments, solvent, surfactant, etc.) which is blended with a thermosetting resin such as a melamine type resin in providing a decorative design to a décor layer (abstract; col. 4 lines 30-75; examples 1-2).

Alternatively, it would have been obvious in the art to use an ink composition comprising a blend of melamine formaldehyde and methylol melamine in the process of Hansson et al in a process for forming a décor layer of Hansson et al, because: a) Scher et al, drawn to making a decorative laminated article, discloses the desirability of using an ink composition comprising melamine formaldehyde or methylol melamine for providing a decorative design to a décor layer on the laminated article (abstract; col. 4 lines 30-75; examples 1-2); and, it is a common practice in the art to formulate an ink composition such that it includes a resin binder or a blend of resin binders as exemplified in the teachings of Pavlin (col. 5 lines 25-62). Additionally, It is now well settled "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose ... [T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F2d 846, 205 USPQ 1069, CCPA 1980). It directly follows that, blending (for example) a methylol melamine to a printing ink composition comprising a melamine formaldehyde in a process of Hannson et al would have been an obvious expediency in the art. None, but only the expected result of providing a desired decorative design a décor layer to a finished laminated board would have been achieved. As for a functional limitation of improving the bonding between a wear layer and a décor layer, such is expected to naturally flow from the process taught by Hanson et al using an ink composition taught by Scher et al in view of

Art Unit: 1733

the similarity of the production processes between the claimed invention and the process of Hansson et al using an ink comprising a blend of melamine resin and in view that the melamine resin is functionally acting as a binder.

With respect to claim 6-9 and 17, see figure 1, column 1 lines 25-40, and column 4 lines 46-65 of the Hansson et al patent. Additionally, it would have been obvious in the art to bond a paper layer to a base layer before a printing ink is applied on the paper as such is an art recognized effective way to apply a decorative design to a décor layer. An incentive for one in the art to bond a décor layer to a base layer before a printing ink is applied on it would have simply been to obviate a potential problem of misaligning a decorative design if a printing ink is applied before a décor layer is bonded onto a base layer.

With respect to claims 10-12, see column 5 lines 39-65 of the Hansson et al patent. A melamine-formaldehyde resin is taken to be a relatively high viscosity resin.

With respect to claims 13-15, see column 5 lines 5-65 and process scheme 1 illustrated between columns 7-8 of the Hansson et al patent.

With respect to claim 16, see process scheme 1, where it illustrates an embossing operation and also see column 6 lines 13-26 of the Hansson et al patent.

10. Claims 1-2, 4 and 6-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson et al (US 6,465,046 B1) in view of Yasui et al (US 4,084,836).

Art Unit: 1733

With respect to claims 1-2 and 4, the discussions of the Hansson et al patent set forth above are incorporated herein. Hansson et al is silent on the type of ink, which is used for providing decorative design on a décor layer. In particular, Hansson et al does not teach mixing "... an amount of amino resin" "into the printing ink in order to increase the bond between the decorative layer and wear layer" as required in claim 1. However, Yasui et al discloses using a modified alkyd resin composition (abstract) for use as a printing ink, where a melamine curing resin such as a methoxymethyl melamine (taken to be embraced by a limitation recited in claim 4) is blended to the alkyd resin composition, and accordingly, the alkyd resin composition is "extremely superior" when used as a printing ink and has enhanced "gloss, hardness, impact resistance, water resistance and alkaline hydrolysis resistance" and has an "excellent ... oil resistance, chemical resistance and spray resistance" (col. 2 lines 22-62; col. 5 line 39 to col. 6 line 31; example 4). It would have been obvious in the art to use a modified alkyd based ink suggested by Yasui et al, where a methoxymethyl melamine has been incorporated therein in order to form a décor layer on decorative board of Hansson et al which has "extremely superior" properties in terms of (for example) "gloss, hardness, impact resistance, water resistance ... alkaline hydrolysis resistance", chemical resistance, etc.

With respect to claims 6-17, for the same reasons set forth in numbered paragraph 7, these claims would have been obvious in the art.

Art Unit: 1733


Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (571) 272-1224. The examiner can normally be reached on Monday-Friday with second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Richard Crispino can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Sam Chuan C. Yao
Primary Examiner
Art Unit 1733

Scy
03-30-07